

REMARKS

The application has been reviewed in light of the final Office Action dated January 18, 2005. Claims 1-5 were pending. By this Amendment, claims 1 and 2 have been canceled, without prejudice or disclaimer, and independent claim 5 has been amended to clarify the claimed invention. Applicant respectfully submits that no new matter and no new issues are introduced by the claim amendments. Support for the claim amendments can be found in the application at, for example, page 47, line 19 through page 48, line 19. Accordingly, claims 3-5 are now pending, with claims 3 and 5 being in independent form.

Claim 5 was rejected under 35 U.S.C. §112, first paragraph, as purportedly failing to comply with the written description requirement.

In response, claim 5 has been carefully reviewed and amended. Applicant submits that amended claim 5 is adequately supported by the written description contained in the application as filed. See the application at, for example, page 47, line 19 through page 48, line 19.

Accordingly, withdrawal of the rejection of claim 5 under 35 U.S.C. §112 is respectfully requested.

Claims 1-4 were rejected under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent 6,075,920 to Kawamura et al.

Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claim 3 of this application is patentable over the cited art, for at least the following reasons.

The data recorded on a recording medium (such as compact disc) typically includes header data, user data, synchronization data and subcode data, and is in a predetermined format for each frame of data. The subcode data facilitates access of the user data on the recording

medium. Typically, timing between subcode data and user data must be maintained on the recording medium. Thus, subcode data includes time information type subcode data, in addition to other types of subcode data.

This application relates to automatic generation of subcode data for a recording medium. Applicant devised techniques for automatic generation of subcode data which overcome the problems of conventional techniques, by storing and retrieving commands for the automatic generation of the time information type subcode data and commands for the automatic generation of other types of subcode data. A single stored command in memory can replace and cause to be generated, for example, a hundred subcode data sectors. As a result, memory access is not required for generating each subcode data sector, and thus it is possible to improve memory access efficiency and thereby achieve satisfactory processing speed. In addition, the commands for automatic generation of time information type subcode data are grouped together in one area of memory, and the commands for automatic generation of other types of subcode data are grouped together in another area of memory (see, for example, FIG. 14). Accordingly, automatic generation of time information type subcode data can proceed concurrently with automatic generation of other types of subcode data (that is, automatic generation of time information type subcode data does not depend on conclusion of the preceding generation of other types of subcode data).

For example, independent claim 3 is directed to a subcode-data generating circuit, which generates subcode data including subcode component data which indicates time information and additional subcode component data which indicates information other than the time information. The circuit includes a first generating portion for automatically generating the subcode component data which indicates the time information, a second generating portion for

automatically generating the additional subcode component data which indicates the information other than the time information, a selecting portion which selects an output of at least one of the first and second generating portions, and a memory. The first generating portion operates according to a first command for automatic generation of a plurality of time information subcode component data, and the second generating portion operates according to a second command for automatic generation of a plurality of additional subcode component data. The first commands are written collectively in a first area of the memory, and the second commands are written collectively in a second area of the memory.

Kawamura, as understood by Applicant, is directed to techniques for recording subcode data along with user data onto a recording medium. Time code information is generated by generator 9 based on a command received directly from control unit 20. Fig. 6 of Kawamura shows a structure of subcode in which time code is inserted. Fig. 6 does not show or suggest, however, storage in memory of commands for automatic generation of a plurality of time information subcode component data and/or commands for automatic generation of a plurality of additional subcode component data.

Applicant does not find teaching or suggestion in Kawamura, however, that the first commands for automatic generation of a plurality of time information subcode component data are written collectively in a first area of the memory, and second commands for automatic generation of a plurality of additional subcode component data are written collectively in a second area of the memory, as provided by the claimed invention of claim 3.

Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claim 3 and claims depending therefrom are allowable, and that the application is now in condition for allowance.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Office is hereby authorized to charge any fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Allowance of this application is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul Teng", is written over a horizontal line.

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